Isabel Inlet

Isabel Inlet formed in the Outer Banks during Hurricane Isabel in September 2003 (Figs. 16, 17 and 18). GPR data were collected here to illustrate the characteristics of a known modern inlet. The inlet was filled within 40 days by the U.S. Army Corps of Engineers using sand dredged from Hatteras Inlet navigation channel to the southwest. Historical records indicate that the Isabel Inlet region, along the narrow barrier between Hatteras and Frisco, has experienced inlet activity in the past. Isabel Inlet is classified as a non-migrating inlet that has opened twice in 70 years (in 1933 and 2003). Following the most recent opening, the pilings associated with a bridge built during the 1933 opening were re-exposed (Fig. 18).

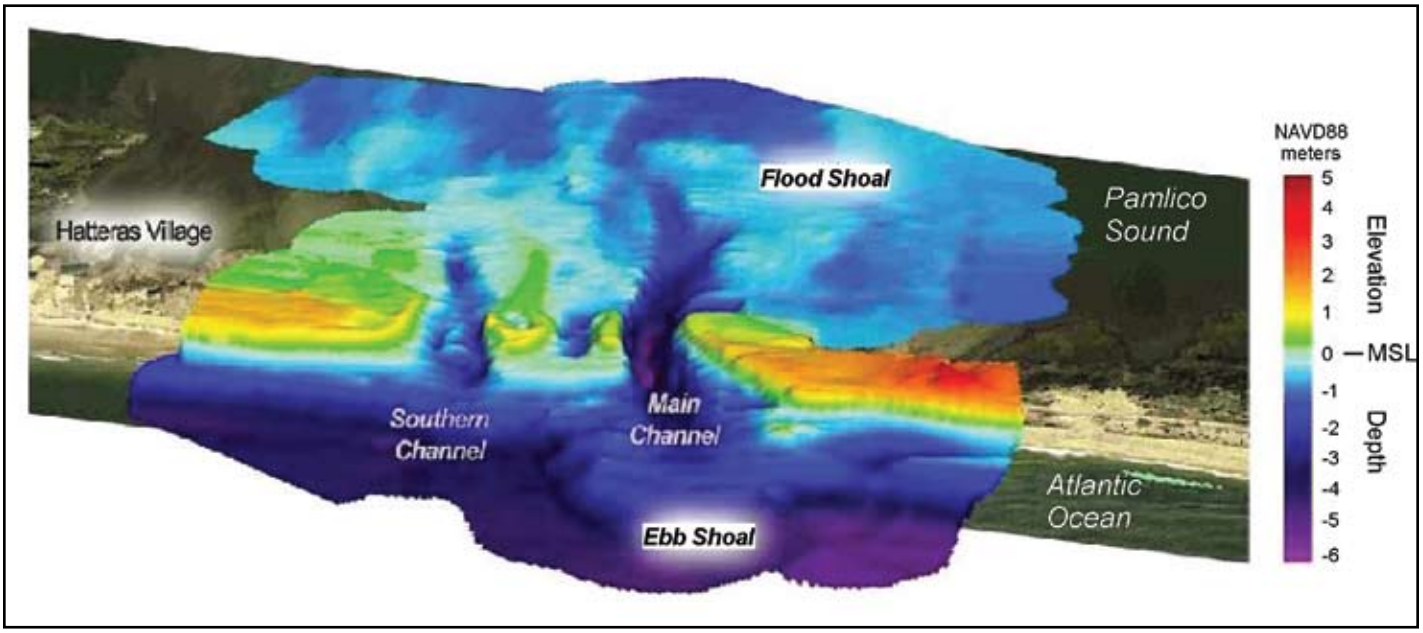

Figure 17. Figure showing the digital elevation model of Isabel Inlet that was made by Geodynamics, Ltd. (modified from Freeman et al., 2004) showing the beginnings of flood-tide delta (Flood Shoal) and ebb-tide delta (Ebb Shoal) formation, and channels scoured to 6 meters (20 feet) below sea level. The inlet was filled by the USACE before a significant flood-tide delta could form.

Figure 18. A photograph looking northeast across the newly formed Isabel Inlet. Notice the pilings in the water (right side of photograph) which are the remains of a bridge built in 1933. Photograph courtesy of Gary Owens.